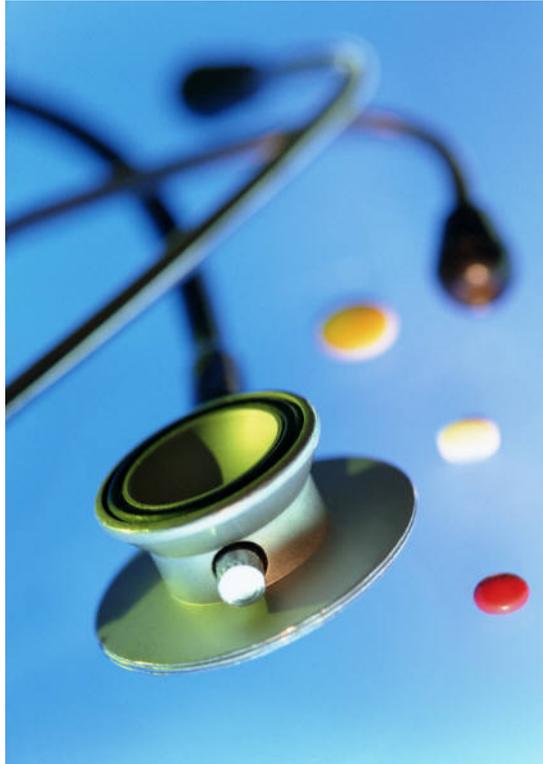


# Arizona Health Care Cost Containment System



## DIABETES MANAGEMENT PERFORMANCE IMPROVEMENT PROJECT

### FINAL REPORT

Prepared by the Division of Health Care Management  
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**Arizona Health Care Cost Containment System (AHCCCS)**

**DIABETES MANAGEMENT  
PERFORMANCE IMPROVEMENT PROJECT**

**Final Report**

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# Arizona Health Care Cost Containment System (AHCCCS)

## DIABETES MANAGEMENT PERFORMANCE IMPROVEMENT PROJECT

### Final Report

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## INTRODUCTION

### **The Burden of Diabetes**

The federal Centers for Disease Control and Prevention (CDC) estimates that more than 20 million Americans age 20 years and older, or 9.6 percent of all people in this age group, have diabetes. About 1.5 million new cases of diabetes were diagnosed among people 20 years and older in 2005.<sup>1</sup>

An estimated 244,000 Arizona adults had a diagnosis of diabetes in 2002, the most recent year for which state-specific data are available.<sup>2</sup>

Diabetes was the sixth leading cause of death in the United States in 2002, causing or contributing to at least 224,000 deaths.<sup>3</sup>

In the United States, Hispanics, blacks, American Indians and Alaska natives are twice as likely to have diabetes than non-Hispanic whites.<sup>1</sup> National data also show higher rates of diabetes among people with low socioeconomic status or those covered by Medicaid, men and people age 60 and older.<sup>1,4</sup>

The number of people in the United States with diagnosed diabetes has more than doubled in the last 15 years.<sup>5</sup> The prevalence of diabetes in Arizona also has increased during that time.<sup>6</sup> Contributing to this increase is the large number of “baby boomers” who are aging and living longer

than previous generations. A sedentary lifestyle and a dramatic rise of obesity in the U.S. population also are increasing the incidence of diabetes.<sup>7</sup>

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*Total U.S. expenditures related to diabetes were approximately \$132 billion in 2002*

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About one out of every 10 health care dollars in the United States is spent on diabetes and its complications. Total U.S. expenditures related to diabetes were approximately \$132 billion in 2002 – \$92 billion in direct medical costs and another \$40 billion in indirect costs because of missed work days or other losses in productivity.<sup>9</sup> At least 4 million hospitalizations and more than 26 million outpatient visits annually in the U.S. are associated with diabetes.<sup>8,10</sup>

### **What is Diabetes?**

Diabetes mellitus is a group of chronic diseases characterized by high levels of blood glucose, which occur when the body does not properly produce or use insulin. Insulin is a hormone that is needed to convert carbohydrates into glucose, a simple sugar that is a primary source of energy. Both genetics and lifestyle, such as obesity and lack of exercise, are associated with the disease.<sup>3</sup>

There are several types of diabetes:<sup>3</sup>

- Type 1 diabetes accounts for 5 to 10 percent of all diagnosed cases, and occurs when the cells that produce insulin are destroyed. Type 1 diabetes usually begins in childhood or adolescence, and has been called juvenile-onset diabetes.
- Type 2 diabetes, which accounts for 90 to 95 percent of diagnosed cases, occurs as the body develops insulin resistance or the pancreas loses the ability to produce insulin. Type 2 is associated with both genetic and behavioral factors, including age, obesity, physical inactivity, family history and race or ethnicity. Normally seen in adults, type 2 diabetes is on the rise in children and young adults, particularly among American Indians, African Americans and Hispanic or Latino Americans.
- Gestational diabetes, which is diagnosed in about 4 percent of women during pregnancy, and may be manifested later as type 2 diabetes.
- Other types of diabetes result from specific genetic conditions, drugs, malnutrition, infections and other illnesses. These types account for 1 percent to 5 percent of diagnosed cases.

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### Up to 70 percent of people with diabetes have mild to severe forms of nervous system damage

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With diabetes, sustained high blood sugars result in microvascular complications; that is, damage to the very fine blood vessels of the eyes, peripheral nerves and kidneys. Diabetic retinopathy (damage to the retina of the eye) causes 12,000 to 24,000 new cases of blindness each year. Up to 70 percent of people with diabetes have mild to severe forms of nervous system damage, including impaired sensation or pain in the feet or hands, slowed digestion of food,

carpal tunnel syndrome and other nerve problems.<sup>3</sup>

Macrovascular complications include coronary and peripheral artery disease, which may lead to heart attack or stroke, and amputation. As with many diseases, other conditions (known as comorbid conditions) may be present with diabetes.

### The Importance of Glucose Control

Despite its deadly effects, diabetes can be controlled. Many complications of the disease can be prevented or reduced with early detection, improved care and better education of patients in self-management techniques.<sup>5,11</sup>

Control of hyperglycemia (increased blood sugar) is critical to reducing both the incidence and progression of complications associated with diabetes. Physicians utilize a glycosylated hemoglobin, or Hb A<sub>1c</sub>, test to monitor patients' blood glucose levels. This test indicates a person's average glucose level over a two- to three-month period by measuring the amount of glucose that has bonded with hemoglobin in the body's red blood cells.

Studies in the United States and abroad have shown that improved glycemic control benefits people with either type 1 or type 2 diabetes. In general, for every percentage point decrease in Hb A<sub>1c</sub> levels, the risk of developing microvascular complications is reduced by 35 to 40 percent.<sup>3,12,13</sup>

This performance improvement project (PIP) was initiated in 2002. Its purpose was to increase the rate of Hb A<sub>1c</sub> testing among adults with diabetes who were enrolled with the Arizona Health Care Cost Containment System (AHCCCS) and to reduce the proportion of those members whose blood glucose was poorly controlled.

## PROJECT METHODS

### Measurement Criteria

AHCCCS used Health Plan Employer Data and Information Set (HEDIS) specifications from the National Committee for Quality Assurance (NCQA) as a guideline for measurement of diabetes management. HEDIS methodology includes six indicators of comprehensive diabetes care. For purposes of this PIP, AHCCCS chose to focus on two critical indicators: Hb A<sub>1c</sub> testing and Hb A<sub>1c</sub> levels.

It should be noted that, while the HEDIS indicators are based on clinical considerations, they are not the same as treatment guidelines. HEDIS measurement criteria differ from clinical standards, such as those set forth by the American Diabetes Association (ADA) and the American Association of Clinical Endocrinologists (AACE), for frequency of Hb A<sub>1c</sub> testing and optimum laboratory values. However, HEDIS specifications provide a standardized method for valid and reliable measurements of these services, and results can be compared with data reported to NCQA by other health care organizations using this methodology.

HEDIS methodology was used to establish baseline rates for each indicator, and to remeasure rates after interventions to improve utilization of services were implemented.

### Population

The population included in each measurement consisted of members ages 18 to 75 who were diagnosed with type 1 or type 2 diabetes, as identified by HEDIS criteria.

Tribal and fee-for-service members were excluded from this study due to the inability to accurately collect complete data on these populations. Often these members seek medical care outside of the AHCCCS system using their Indian Health Service or Medicare benefits. Therefore, information on Hb A<sub>1c</sub> testing is not available from AHCCCS encounter data.

### Sample Frame

The sample frame consisted of members who:

- were ages 18 through 75 years as of September 30 of the measurement period,
- were continuously enrolled with one AHCCCS-contracted health plan (Contractor), with no more than one gap in enrollment, not exceeding 31 days, as of September 30, and
- had a diagnosis of type 1 or type 2 diabetes in the measurement period or the year prior to the measurement period.

Members were identified as having type 1 or type 2 diabetes by either pharmacy or encounter data (records of claims paid for covered services). For example, a member was identified as having diabetes if he or she had one face-to-face encounter with a diagnosis of diabetes in an acute inpatient or emergency room setting during the measurement period or the previous year.

### Measurement Periods

Multiple measurements were conducted to determine whether contracted health plans (Contractors) demonstrated improvement over their baseline rates and at least maintained that level of performance for an additional year. Contractors were allowed a year between the baseline and first remeasurement to implement interventions to improve Hb A<sub>1c</sub> testing and levels.

Measurements for this PIP were based on AHCCCS contract years, as follows:

- Baseline - October 1, 2000, through September 30, 2001
- First Remeasurement - October 1, 2002, through September 30, 2003
- Second Remeasurement - October 1, 2003, through September 30, 2004

AHCCCS conducted an additional measurement of performance by one Contractor that did not previously demonstrate sustained improvement, which included the contract year October 1, 2004, through September 30, 2005.

### **Data Sources**

AHCCCS uses a statewide, automated managed care data system known as the Prepaid Medical Management Information System (PMMIS). AHCCCS enrollment and encounter data contained in PMMIS were used to select sample members for this study and to collect data on any Hb A<sub>1c</sub> tests provided to sample members during the measurement period. These data were supplemented by data collected by Contractors from their claims systems and/or medical and laboratory records.

### **Study Sample**

For each measurement, AHCCCS selected a sample stratified by program type (i.e., Acute-care health plans vs. long-term care plans) and individual Contractor. A statistical software program was used to select a representative, random sample, using a 95-percent confidence level and a confidence interval of +/-5 percent. Based on prior studies, an over sampling rate of 10 percent was utilized.

### **Data Collection**

AHCCCS initially collected data on Hb A<sub>1c</sub> testing from its encounter system (laboratory values for Hb A<sub>1c</sub> levels were not available from encounter data). When AHCCCS did not find encounters for Hb

A<sub>1c</sub> tests for sample members within the measurement period, it required Contractors to collect data for those members. Contractors collected additional data for tests performed, as well as Hb A<sub>1c</sub> levels for all sample members tested during the measurement period. This information was entered by Contractor staff into a standardized electronic data collection tool, according to detailed instructions from AHCCCS.

### **Data Quality and Reliability**

AHCCCS conducts studies to evaluate the accuracy of encounter data. Based on the most recent data validation study, more than 90 percent of all encounters in PMMIS are accurate when compared with the corresponding medical records.

Contractors were required to submit information to validate any additional data collected (e.g., hard copies of the appropriate sections of medical records or electronic laboratory data) with their completed electronic data collection tools.

### **Study Indicators**

***Hb A<sub>1c</sub> testing*** — This indicator measured the percent of members who had one or more Hb A<sub>1c</sub> tests during the measurement period.

***Hb A<sub>1c</sub> level*** — This indicator measured the percent of members whose most recent Hb A<sub>1c</sub> tests during the measurement period showed blood-glucose levels greater than 9.5 percent (the level at which HEDIS criteria indicated “poor control” of blood glucose when this PIP was initiated; the HEDIS level for poor control has since been lowered). According to HEDIS criteria, if there was no documentation of a test performed during the measurement period or if a laboratory level for a test was not documented, the member was considered to have poor glucose control.

### **National Benchmarks**

AHCCCS utilized as benchmarks for these indicators the most recent national HEDIS averages for Medicaid health plans that were available at the time the baseline measurement was collected in 2002. The Medicaid mean (average) for annual Hb A<sub>1c</sub> testing was 68.5 percent. The mean for poor control of blood-glucose for Medicaid plans was 54.9 percent. (The current Medicaid averages, based on calendar year 2004 data, are 76.0 percent for Hb A<sub>1c</sub> testing and 48.6 percent for poor control.).

### **Performance Improvement Goals**

Through this performance improvement project, all Contractors were expected to increase their rates of annual Hb A<sub>1c</sub> testing and reduce the proportion of members with poorly controlled diabetes (those with Hb A<sub>1c</sub> levels greater than 9.5 percent.).

Improvement was determined according to whether Contractors “narrowed the gap” between their baseline rates and the benchmark, as follows:

- When a Contractor’s baseline rate for either indicator was below the AHCCCS overall average for the baseline measurement, it must have improved its rate to meet or exceed the AHCCCS baseline average, and the change must have been statistically significant ( $p \leq .05$ ).
- When the Contractor’s baseline rate was above the AHCCCS overall average, but below the NCQA average at baseline, it must have met or exceeded the NCQA rate on the first remeasurement, and the change must have been statistically significant.
- When the Contractor achieved a rate for the first remeasurement that was at or above the NCQA benchmark.

Contractors that demonstrated improvement from the baseline to first remeasurement or achieved the benchmark rate must have at least maintained that level of performance for the second remeasurement to meet the AHCCCS requirement of “sustained improvement” for PIPs. Contractors that achieved demonstrable and sustained improvement in the second remeasurement were considered to have completed this PIP. Any Contractor who did not show demonstrable and sustained improvement by the second remeasurement was required to continue the project until it met that standard.

### **Intervention and Re-evaluation Process**

In addition to the baseline measurement and remeasurements of performance conducted by AHCCCS, the agency provided technical assistance to Contractors on barriers to Hb A<sub>1c</sub> testing and strategies to improve care. This included researching and providing information on evidence-based practices to improve diabetes management, providing educational presentations at regular AHCCCS meetings with Contractors, and advising them of other educational opportunities and resources.

Contractors began implementing interventions to improve their rates in CYE 2003, after the baseline measurement was collected and analyzed by AHCCCS. After the first remeasurement, Contractors reported to AHCCCS when specific interventions were implemented and an evaluation of their effectiveness. If a Contractor did not show improvement over its baseline rates, it was expected to revise or enhance existing strategies and/or add new interventions.

## RESULTS AND ANALYSIS

### Included Cases

The baseline measurement included 2,945 members with diabetes who were enrolled with Acute-care Contractors or Arizona Long Term Care System (ALTCS) Contractors. This total included members with two health plans that no longer contract with AHCCCS, CIGNA Community Choice and Family Health Plan of Northeastern Arizona. Data for these health plans were subsequently excluded from the PIP, leaving a baseline measurement that consisted of 2,673 sample members. The first and second remeasurements included 3,248 members and 3,360 members, respectively, who were enrolled with 15 Contractors.

### Hb A<sub>1c</sub> Testing

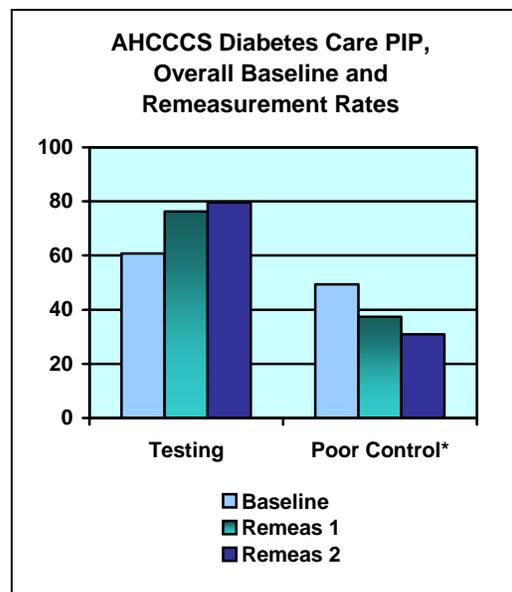
Overall, the proportion of members who had at least one Hb A<sub>1c</sub> test during the measurement period increased from the baseline measurement to the first remeasurement ( $p < .001$ ), as shown in Table 1. After exclusion of members from the two health plans, the overall proportion of members who received an Hb A<sub>1c</sub> test during the baseline measurement period was 60.8 percent, compared with the overall rate for the first remeasurement of 76.3 percent.

The overall rate further improved in the second remeasurement, with a rate of 79.5 percent ( $p < .001$ ), as shown in Table 2.

### Hb A<sub>1c</sub> Levels (Poor Control)

Overall, 49.4 percent of members in the revised baseline measurement (after exclusion of the two health plans' data) were considered to have poor control of blood-glucose levels. The first remeasurement showed a reduction in the rate of poorly controlled levels, to 37.4

percent ( $p < .001$ ), as shown in Table 3. The overall rate of poor control further improved in the second remeasurement, with a rate of 30.9 percent ( $p < .001$ ), as shown in Table 4.



\* Note: Lower rates for this indicator are better.

Rates for both indicators also were analyzed by program type (Acute-care or ALTCS) and by individual Contractors (Tables 1 through 4).

### Contractor Performance

From baseline to the first remeasurement, all but one Contractor, Evercare Select, showed statistically significant improvement and/or achieved the benchmark level of performance (the NCQA Medicaid average of 68.5 percent) for Hb A<sub>1c</sub> testing. The number of plans exceeding the NCQA benchmark increased from five (33.3 percent) in the baseline measurement to 11 ( 73.3 percent) in the first remeasurement, as shown in Figures 1 and 2.

In the second remeasurement, all Contractors sustained (i.e., did not show a statistically significant decrease) or improved their levels of performance in Hb A<sub>1c</sub> testing. Evercare Select, which showed no statistically significant change from the baseline to first remeasurement (p=.243), demonstrated a statistically significant increase in its rate between the first and second remeasurements (p=.046).

For poor control of Hb A<sub>1c</sub> levels, all Contractors showed statistically significant improvement and/or achieved the benchmark (i.e., under the NCQA Medicaid average of 54.9 percent) from the baseline to first remeasurement. The number of plans with rates better than the NCQA benchmark increased from nine (60.0 percent) in the baseline measurement to 15 (100.0%) in the first remeasurement, as shown in Figures 3 and 4. All Contractors maintained or further improved their levels of performance in the second remeasurement.

In order to verify that Evercare Select had sustained or improved its level of HbA<sub>1c</sub> testing, another remeasurement was conducted for this Contractor only. As shown in Table 5A, Evercare Select further improved its level of Hb A<sub>1c</sub> testing during the third remeasurement, to 77.2 percent from 66.9 percent in the second remeasurement (p<.001). The Contractor sustained its previous improvement in the

indicator of poor control (Table 5B).

### **Data Validation Studies**

AHCCCS validated data submitted by Contractors for the first remeasurement of this project. A double-blind validation study was performed by AHCCCS in May 2005, matching the medical record or laboratory data with data on the Contractor's electronic file. The results of this validation showed a Kappa agreement of 77.0 percent for Hb A<sub>1c</sub> testing data and 84.0 percent for Hb A<sub>1c</sub> levels, for a total agreement of 82.6 percent, as shown in Table 6.

Data also were validated by individual Contractor, as shown in Table 7. One Contractor, Health Choice Arizona, did not provide adequate documentation to validate its data. Excluding data for this Contractor, the overall Kappa agreement was 88.8 percent for Hb A<sub>1c</sub> testing and 91.7 percent for Hb A<sub>1c</sub> levels, for a total agreement of 91.5 percent (Table 6).

Because data for Health Choice Arizona could not be validated for the first remeasurement, AHCCCS conducted a validation study on data collected by this Contractor for the second remeasurement. As shown in Table 8, the total Kappa agreement for Health Choice was 97.9 percent. The Kappa agreement was 96.8 percent for Hb A<sub>1c</sub> testing and 97.5 percent for Hb A<sub>1c</sub> levels.

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## **DISCUSSION**

### **Overall Results**

This Performance Improvement Project resulted in improvements in both HbA<sub>1c</sub> testing and the proportion of members with poorly controlled blood glucose. With nearly 80 percent of sample members receiving at least one Hb A<sub>1c</sub> test in the second remeasurement period, less than

one-third had Hb A<sub>1c</sub> levels greater than 9.5 percent (including those members who did not have a test or documentation of the laboratory value). These improvements can be associated with interventions implemented by Contractors during the project period, as well as ongoing technical assistance provided by AHCCCS.

The American Diabetes Association recommends that people with diabetes maintain an Hb A<sub>1c</sub> level of less than 7.0 percent.<sup>14</sup> Among eight ALTCS Contractors, members enrolled with seven plans had median Hb A<sub>1c</sub> levels of less than 7.0 percent in the second remeasurement (Table 4). The median level among all members at the end of the project was 7.0 percent.



The American Diabetes Association recommends an HbA<sub>1c</sub> level of less than 7.0 percent

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### **Contractor Interventions**

After completing analysis of baseline data, AHCCCS identified barriers to Hb A<sub>1c</sub> testing and control, as well as successful strategies for increasing the rate of testing. This research and potential interventions were discussed in the report on the baseline measurement for this PIP, published by AHCCCS in 2003.

In general, diabetes is difficult to treat because of the involvement of many body systems, requiring patients to adhere to daily and sometimes complex interventions to control the disease. Controlling blood glucose involves following a careful diet and exercise program, losing excess weight, and taking insulin and/or oral medication. Many people with diabetes

face difficulty in altering their lifestyles to accommodate all these measures.

Because diabetes is frequently an asymptomatic disease, patients may not adhere to treatment regimens or utilize preventive-care services such as regular blood-glucose testing.<sup>12</sup> Patients' socioeconomic status also may pose a barrier to use of preventive-care services. Lower levels of education are associated with patients not adhering to recommendations for diabetes self management. This likely is related to a lack of understandable or relevant patient education materials.<sup>13,14</sup>

Physicians also face barriers in ensuring that patients receive preventive-care services and have adequately controlled glucose levels. Common physician barriers include confusion caused by differing recommendations regarding testing and treatment, the need for frequent monitoring and medication adjustments to achieve treatment goals, and time limitations.<sup>11,13</sup>

Contractors also evaluated their baseline data and developed or enhanced existing activities to improve Hb A<sub>1c</sub> testing and levels. Based on this research and analysis, health plans implemented interventions that included:

- Distribution of clinical practice guidelines for diabetes care to primary care practitioners (PCPs) and other providers, such as nursing and assisted living facilities
- Providing clinical tools to PCP offices and nursing facilities, such as a diabetes flow sheet, which is placed in a member's medical chart as a reminder to perform Hb A<sub>1c</sub> testing and other preventive-care services
- Utilizing disease management or case management staff to contact members with diabetes to ensure they have Hb A<sub>1c</sub> tests

- Implementing methods to better identify members with diabetes in order to facilitate tracking and follow up
- Monitoring Hb A<sub>1c</sub> testing through chart reviews or claims reports, and providing feedback to PCPs whose diabetic members did not have tests
- Regularly informing health plan case managers, PCPs and other providers of the health plan's overall results under this PIP
- Regularly providing information to members with diabetes, to help ensure they receive appropriate tests as needed
- Use of diabetes educators and referral to diabetes education classes to help members better understand and participate in managing their disease

Table 9 provides more information about Contractors' specific interventions under this PIP.

**Conclusion**

Contractors have submitted final reports on this PIP to AHCCCS, chronicling their interventions and evaluating the success of this project as it relates to their members. All Contractors reported that effective interventions will be ongoing.

One ALTCS Contractor, in its final report, stated that it “has been literally bombarding members and providers with information about diabetes. (Contractor staff feel) that there is a direct correlation between our educational interventions and the steady, sustained improvement in both the Hb A<sub>1c</sub> testing indicator and the poor Hb A<sub>1c</sub> control indicator.”

It should be noted that the AHCCCS overall rates of Hb A<sub>1c</sub> testing and poor control as of the second remeasurement (CYE 2004) are better than the current HEDIS means. The overall AHCCCS rate of 79.5 percent for Hb A<sub>1c</sub> testing exceeds the HEDIS 2005 mean of 76.0 percent for

Medicaid plans nationally. The overall AHCCCS rate of 30.9 percent for poor control places the Arizona Medicaid program in the top 10 percent of Medicaid plans nationally, and is equivalent to the mean for commercial health plans.

**AHCCCS Overall Rates vs. HEDIS Means**

Measure	AHCCCS Rate, 2004	Medicaid Mean, 2005	Commercial Mean, 2005
Hb A <sub>1c</sub> Testing	79.5	76.0%	86.5%
Poor Control*	30.9	50.1%	30.7%

\* Note: Lower rates for this indicator are better.

Finally, while this project measured whether members received a minimum of one Hb A<sub>1c</sub> test annually according to HEDIS criteria, clinical practice guidelines recommend Hb A<sub>1c</sub> testing at least twice a year for patients who have stable glycemic control and quarterly for patients who are not meeting glycemic goals. To further improve care and health outcomes for members with diabetes, Contractors should continue to focus on ensuring that members with diabetes receive Hb A<sub>1c</sub> tests and other preventive-care services at the recommended intervals.

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**TABLE 1**  
**AHCCCS Diabetes Management Performance Improvement Project**  
**Members Receiving Hb A1c Tests, by Contractor**  
**First Remeasurement (CYE 2003) compared with Baseline Measurement (CYE 2001)**

Contractor	Included Cases	Number Receiving Hb A1c Test	Percent Receiving Hb A1c Test	Relative Change	Significance Level
<b>APIPA</b>	<b>360</b>	<b>297</b>	<b>82.5%</b>	<b>204.9%</b>	<b>p&lt;.001</b>
	340	92	27.1%		
<b>Health Choice Arizona</b>	<b>298</b>	<b>248</b>	<b>83.2%</b>	<b>7.2%</b>	<b>p=.098</b>
	255	198	77.6%		
<b>Maricopa Health Plan</b>	<b>269</b>	<b>225</b>	<b>83.6%</b>	<b>2.5%</b>	<b>p=.542</b>
	267	218	81.6%		
<b>Mercy Care Plan</b>	<b>359</b>	<b>283</b>	<b>78.8%</b>	<b>19.4%</b>	<b>p&lt;.001</b>
	332	219	66.0%		
<b>Phoenix Health Plan/ Community Connection</b>	<b>309</b>	<b>202</b>	<b>65.4%</b>	<b>37.4%</b>	<b>p&lt;.001</b>
	252	120	47.6%		
<b>Pima Health System</b>	<b>234</b>	<b>188</b>	<b>80.3%</b>	<b>12.2%</b>	<b>p=.035</b>
	190	136	71.6%		
<b>University Family Care</b>	<b>243</b>	<b>198</b>	<b>81.5%</b>	<b>-2.6%</b>	<b>p=.553</b>
	178	149	83.7%		
<b>ACUTE Subtotal</b>	<b>2072</b>	<b>1641</b>	<b>79.2%</b>	<b>26.9%</b>	<b>p&lt;.001</b>
	1814	1132	62.4%		
<b>Cochise Health Systems</b>	<b>83</b>	<b>67</b>	<b>80.7%</b>	<b>29.5%</b>	<b>p=.010</b>
	77	48	62.3%		
<b>Evercare Select</b>	<b>167</b>	<b>84</b>	<b>50.3%</b>	<b>-11.8%</b>	<b>p=.243</b>
	135	77	57.0%		
<b>Maricopa LTC</b>	<b>217</b>	<b>173</b>	<b>79.7%</b>	<b>25.3%</b>	<b>p&lt;.001</b>
	253	161	63.6%		
<b>Mercy Care LTC</b>	<b>185</b>	<b>125</b>	<b>67.6%</b>	<b>52.0%</b>	<b>p=.049</b>
	18	8	44.4%		
<b>Pima Health System LTC</b>	<b>201</b>	<b>155</b>	<b>77.1%</b>	<b>8.6%</b>	<b>p=.200</b>
	145	103	71.0%		
<b>Pinal/Gila County LTC</b>	<b>74</b>	<b>54</b>	<b>73.0%</b>	<b>86.5%</b>	<b>p&lt;.001</b>
	46	18	39.1%		
<b>Yavapai County LTC</b>	<b>78</b>	<b>50</b>	<b>64.1%</b>	<b>43.0%</b>	<b>p=.025</b>
	58	26	44.8%		
<b>DES/DDD</b>	<b>171</b>	<b>128</b>	<b>74.9%</b>	<b>86.3%</b>	<b>p&lt;.001</b>
	127	51	40.2%		
<b>ALTCS Subtotal</b>	<b>1176</b>	<b>836</b>	<b>71.1%</b>	<b>24.1%</b>	<b>p&lt;.001</b>
	859	492	57.3%		
<b>OVERALL</b>	<b>3248</b>	<b>2477</b>	<b>76.3%</b>	<b>25.5%</b>	<b>p&lt;.001</b>
	2673	1624	60.8%		

Notes:

- (1) Shaded rows reflect results of the baseline measurement (October 1, 2000, through September 30, 2001).
- (2) Significance levels in bold indicate statistically significant change

**TABLE 2**  
**AHCCCS Diabetes Management Performance Improvement Project**  
**Members Receiving Hb A1c Tests, by Contractor**  
**Second Remeasurement (CYE 2004) compared with First Remeasurement (CYE 2003)**

Contractor	Included Cases	Number Receiving Hb A1c Test	Percent Receiving Hb A1c Test	Relative Change	Significance Level
<b>AIPA</b>	<b>352</b>	<b>300</b>	<b>85.2%</b>	<b>3.3%</b>	p=.323
	360	297	82.5%		
<b>Health Choice Arizona</b>	<b>304</b>	<b>260</b>	<b>85.5%</b>	<b>2.8%</b>	p=.436
	298	248	83.2%		
<b>Maricopa Health Plan</b>	<b>271</b>	<b>220</b>	<b>81.2%</b>	<b>-2.9%</b>	p=.452
	269	225	83.6%		
<b>Mercy Care Plan</b>	<b>348</b>	<b>289</b>	<b>83.0%</b>	<b>5.3%</b>	p=.154
	359	283	78.8%		
<b>Plan/Community</b>	<b>299</b>	<b>200</b>	<b>66.9%</b>	<b>2.3%</b>	p=.693
	309	202	65.4%		
<b>Pima Health System</b>	<b>230</b>	<b>177</b>	<b>77.0%</b>	<b>-4.2%</b>	p=.373
	234	188	80.3%		
<b>University Family Care</b>	<b>205</b>	<b>176</b>	<b>85.9%</b>	<b>5.4%</b>	p=.214
	243	198	81.5%		
<b>ACUTE Subtotal</b>	<b>2009</b>	<b>1622</b>	<b>80.7%</b>	<b>1.9%</b>	p=.220
	2072	1641	79.2%		
<b>Cochise Health Systems</b>	<b>86</b>	<b>76</b>	<b>88.4%</b>	<b>9.5%</b>	p=.168
	83	67	80.7%		
<b>Evercare Select</b>	<b>184</b>	<b>112</b>	<b>60.9%</b>	<b>21.1%</b>	<b>p=.046</b>
	167	84	50.3%		
<b>Maricopa LTC</b>	<b>252</b>	<b>207</b>	<b>82.1%</b>	<b>3.0%</b>	p=.505
	217	173	79.7%		
<b>Mercy Care LTC</b>	<b>229</b>	<b>176</b>	<b>76.9%</b>	<b>13.8%</b>	<b>p=.035</b>
	185	125	67.6%		
<b>Pima Health System LTC</b>	<b>212</b>	<b>160</b>	<b>75.5%</b>	<b>-2.1%</b>	p=.695
	201	155	77.1%		
<b>Pinal/Gila County LTC</b>	<b>102</b>	<b>89</b>	<b>87.3%</b>	<b>19.6%</b>	<b>p=.017</b>
	74	54	73.0%		
<b>Yavapai County LTC</b>	<b>89</b>	<b>65</b>	<b>73.0%</b>	<b>13.9%</b>	p=.214
	78	50	64.1%		
<b>DES/DDD</b>	<b>197</b>	<b>165</b>	<b>83.8%</b>	<b>11.9%</b>	<b>p=.034</b>
	171	128	74.9%		
<b>ALTCS Subtotal</b>	<b>1351</b>	<b>1050</b>	<b>77.7%</b>	<b>9.3%</b>	<b>p&lt;.001</b>
	1176	836	71.1%		
<b>OVERALL</b>	<b>3360</b>	<b>2672</b>	<b>79.5%</b>	<b>4.3%</b>	<b>p=.001</b>
	3248	2477	76.3%		

Notes:

(1) Shaded rows reflect results of the first remeasurement (October 1, 2002, through September 30, 2003).

(2) Significance levels in bold indicate statistically significant change

**TABLE 3**  
**AHCCCS Diabetes Management Performance Improvement Project**  
**Members with Poorly Controlled Hb A1c Levels, by Contractor**  
**First Remeasurement (CYE 2003) compared with Baseline Measurement (CYE 2001)**

Contractor	Included Cases	Number with Hb A1c Level >9.5%	Percent with Hb A1c Level >9.5%	Median Hb A1c Level	Relative Change in Levels >9.5%	Significance Level
<b>APIPA</b>	<b>360</b>	<b>118</b>	<b>32.8%</b>	<b>7.3 (6.3,8.9)</b>	<b>-59.0%</b>	<b>p=.109</b>
	340	272	80.0%	7.9 (6.7,9.8)		
<b>Health Choice</b>	<b>298</b>	<b>102</b>	<b>34.2%</b>	<b>7.4 (6.3,9.1)</b>	<b>-9.2%</b>	<b>p=.022</b>
	255	96	37.6%	7.2 (6.3,9.1)		
<b>Maricopa Health Plan</b>	<b>269</b>	<b>103</b>	<b>38.3%</b>	<b>7.9 (6.9,9.7)</b>	<b>12.4%</b>	<b>p=.254</b>
	267	91	34.1%	7.2 (6.9)		
<b>Mercy Care</b>	<b>359</b>	<b>117</b>	<b>32.6%</b>	<b>7.0(6.2,8.3)</b>	<b>-24.3%</b>	<b>p=.657</b>
	332	143	43.1%	7.2(6.3,8.4)		
<b>Phoenix Health Plan/ Community Connection</b>	<b>309</b>	<b>164</b>	<b>53.1%</b>	<b>7.6 (6.4,9.7)</b>	<b>-15.3%</b>	<b>p=.104</b>
	252	158	62.7%	7.7 (6.6,9.3)		
<b>Pima Health System</b>	<b>234</b>	<b>87</b>	<b>37.2%</b>	<b>7.5 (6.4,9.3)</b>	<b>-8.2%</b>	<b>p=.886</b>
	190	77	40.5%	7.2 (6.1,8.9)		
<b>University Family Care</b>	<b>243</b>	<b>90</b>	<b>37.0%</b>	<b>7.3 (6.5,9.2)</b>	<b>2.9%</b>	<b>p=.197</b>
	178	64	36.0%	7.9 (6.9,9.4)		
<b>ACUTE Subtotal</b>	<b>2072</b>	<b>781</b>	<b>37.7%</b>	<b>7.4 (6.4,9.2)</b>	<b>-24.1%</b>	<b>p=.002</b>
	1814	901	49.7%	7.4 (6.3,9.1)		
<b>Cochise Health Systems</b>	<b>83</b>	<b>20</b>	<b>24.1%</b>	<b>6.7 (5.7,7.6)</b>	<b>-47.0%</b>	<b>p=.286</b>
	77	35	45.5%	6.6 (5.6,7.7)		
<b>Evercare Select</b>	<b>167</b>	<b>91</b>	<b>54.5%</b>	<b>6.7(6.2,7.8)</b>	<b>9.9%</b>	<b>p=.001</b>
	135	67	49.6%	7.0(6.8,6)		
<b>Maricopa LTC</b>	<b>217</b>	<b>69</b>	<b>31.8%</b>	<b>7.3 (6.2,8.6)</b>	<b>-27.6%</b>	<b>p=.181</b>
	253	111	43.9%	6.6(5.6,8)		
<b>Mercy Care LTC</b>	<b>185</b>	<b>74</b>	<b>40.0%</b>	<b>6.8 (6.0,8.4)</b>	<b>-28.0%</b>	<b>p=.022</b>
	18	10	55.6%	6.9 (6.1,7.5)		
<b>Pima Health System LTC</b>	<b>201</b>	<b>61</b>	<b>30.3%</b>	<b>6.9 (5.9,8.2)</b>	<b>-17.2%</b>	<b>p=.889</b>
	145	53	36.6%	6.7 (6.8,3)		
<b>Pinal/Gila County LTC</b>	<b>74</b>	<b>24</b>	<b>32.4%</b>	<b>6.8 (6.0,7.9)</b>	<b>-46.8%</b>	<b>p=.143</b>
	46	28	60.9%	7.5 (6.8,6)		
<b>Yavapai County LTC</b>	<b>78</b>	<b>33</b>	<b>42.3%</b>	<b>6.9 (6.0,8.4)</b>	<b>-29.9%</b>	<b>p=.401</b>
	58	35	60.3%	7.9 (6.7,9)		
<b>DES/DDD</b>	<b>171</b>	<b>61</b>	<b>35.7%</b>	<b>6.5 (5.7,7.6)</b>	<b>-44.0%</b>	<b>p=.002</b>
	127	81	63.8%	6.3 (5.6,8)		
<b>ALTCS Subtotal</b>	<b>1176</b>	<b>433</b>	<b>36.8%</b>	<b>6.9 (6.0,8.2)</b>	<b>-24.7%</b>	<b>p&lt;.001</b>
	859	420	48.9%	6.9 (6.0,8.2)		
<b>OVERALL</b>	<b>3248</b>	<b>1214</b>	<b>37.4%</b>	<b>7.2(6.2,8.8)</b>	<b>-24.4%</b>	<b>p&lt;.001</b>
	2673	1321	49.4%	7.2(6.2,8.8)		

Notes:

- (1) Shaded rows reflect results of the first remeasurement (October 1, 2002, through September 30, 2003).
- (2) Significance levels in bold indicate statistically significant change.
- (3) Lower rates for this indicator are better.
- (4) Numbers in parentheses in Median Level column represent interquartile ranges (25th and 75th percentile) when exhibited on a Bell curve.

**TABLE 4**  
**AHCCCS Diabetes Management Performance Improvement Project**  
**Members with Poorly Controlled Hb A1c Levels, by Contractor**  
**Second Remeasurement (CYE 2004) compared with First Remeasurement (CYE 2003)**

Contractor	Included Cases	Number with Hb A1c Level >9.5%	Percent with Hb A1c Level >9.5%	Median Hb A1c Level	Relative Change in Levels >9.5%	Significance Level
<b>APIPA</b>	<b>352</b>	<b>96</b>	<b>27.3%</b>	<b>7.1(6.25,8.4)</b>	<b>-16.8%</b>	<b>p=.109</b>
	360	118	32.8%	7.3 (6.3,8.9)		
<b>Health Choice</b>	<b>304</b>	<b>78</b>	<b>25.7%</b>	<b>7.0(6.2,8.4)</b>	<b>-24.9%</b>	<b>p=.022</b>
	298	102	34.2%	7.4 (6.3,9.1)		
<b>Maricopa Health Plan</b>	<b>271</b>	<b>91</b>	<b>33.6%</b>	<b>7.4(6.5,9.0)</b>	<b>-12.3%</b>	<b>p=.254</b>
	269	103	38.3%	7.9 (6.9,9.7)		
<b>Mercy Care</b>	<b>348</b>	<b>108</b>	<b>31.0%</b>	<b>7.0(6.2,8.35)</b>	<b>-4.9%</b>	<b>p=.657</b>
	359	117	32.6%	7.0(6.2,8.3)		
<b>Community Connection</b>	<b>299</b>	<b>139</b>	<b>46.5%</b>	<b>7.0(6.2,8.5)</b>	<b>-12.4%</b>	<b>p=.104</b>
	309	164	53.1%	7.6 (6.4,9.7)		
<b>Pima Health System</b>	<b>230</b>	<b>87</b>	<b>37.8%</b>	<b>7.3(6.2,8.75)</b>	<b>1.6%</b>	<b>p=.886</b>
	234	87	37.2%	7.5 (6.4,9.3)		
<b>University Family Care</b>	<b>205</b>	<b>64</b>	<b>31.2%</b>	<b>7.5(6.4,9.0)</b>	<b>-15.7%</b>	<b>p=.197</b>
	243	90	37.0%	7.3 (6.5,9.2)		
<b>ACUTE Subtotal</b>	<b>2009</b>	<b>663</b>	<b>33.0%</b>	<b>7.1(6.3,8.6)</b>	<b>-12.5%</b>	<b>p=.002</b>
	2072	781	37.7%	7.4 (6.4,9.2)		
<b>Cochise Health Systems</b>	<b>86</b>	<b>15</b>	<b>17.4%</b>	<b>6.85 (6.1,8.08)</b>	<b>-27.8%</b>	<b>p=.286</b>
	83	20	24.1%	6.7 (5.7,7.6)		
<b>Evercare Select</b>	<b>184</b>	<b>68</b>	<b>37.0%</b>	<b>6.5(6.0,7.5)</b>	<b>-32.1%</b>	<b>p=.001</b>
	167	91	54.5%	6.7(6.2,7.8)		
<b>Maricopa LTC</b>	<b>252</b>	<b>66</b>	<b>26.2%</b>	<b>7.0 (6.2,8.2)</b>	<b>-17.6%</b>	<b>p=.181</b>
	217	69	31.8%	7.3 (6.2,8.6)		
<b>Mercy Care LTC</b>	<b>229</b>	<b>67</b>	<b>29.3%</b>	<b>6.8 (6.0,8.3)</b>	<b>-26.8%</b>	<b>p=.022</b>
	185	74	40.0%	6.8 (6.0,8.4)		
<b>Pima Health System LTC</b>	<b>212</b>	<b>63</b>	<b>29.7%</b>	<b>6.7 (5.9,7.8)</b>	<b>-2.0%</b>	<b>p=.889</b>
	201	61	30.3%	6.9 (5.9,8.2)		
<b>Pinal/Gila County LTC</b>	<b>102</b>	<b>23</b>	<b>22.5%</b>	<b>6.9 (6.1,8.0)</b>	<b>-30.6%</b>	<b>p=.143</b>
	74	24	32.4%	6.8 (6.0,7.9)		
<b>Yavapai County LTC</b>	<b>89</b>	<b>32</b>	<b>36.0%</b>	<b>6.9(6.2,7.6)</b>	<b>-14.9%</b>	<b>p=.401</b>
	78	33	42.3%	6.9 (6.0,8.4)		
<b>DES/DDD</b>	<b>197</b>	<b>42</b>	<b>21.3%</b>	<b>6.3(5.8,7.3)</b>	<b>-40.3%</b>	<b>p=.002</b>
	171	61	35.7%	6.5 (5.7,7.6)		
<b>ALTCS Subtotal</b>	<b>1351</b>	<b>376</b>	<b>27.8%</b>	<b>6.8 (6.1,8.0)</b>	<b>-24.5%</b>	<b>p&lt;.001</b>
	1176	433	36.8%	6.9 (6.0,8.2)		
<b>OVERALL</b>	<b>3360</b>	<b>1039</b>	<b>30.9%</b>	<b>7.0(6.2,8.3)</b>	<b>-17.3%</b>	<b>p&lt;.001</b>
	3248	1214	37.4%	7.2(6.2,8.8)		

Notes:

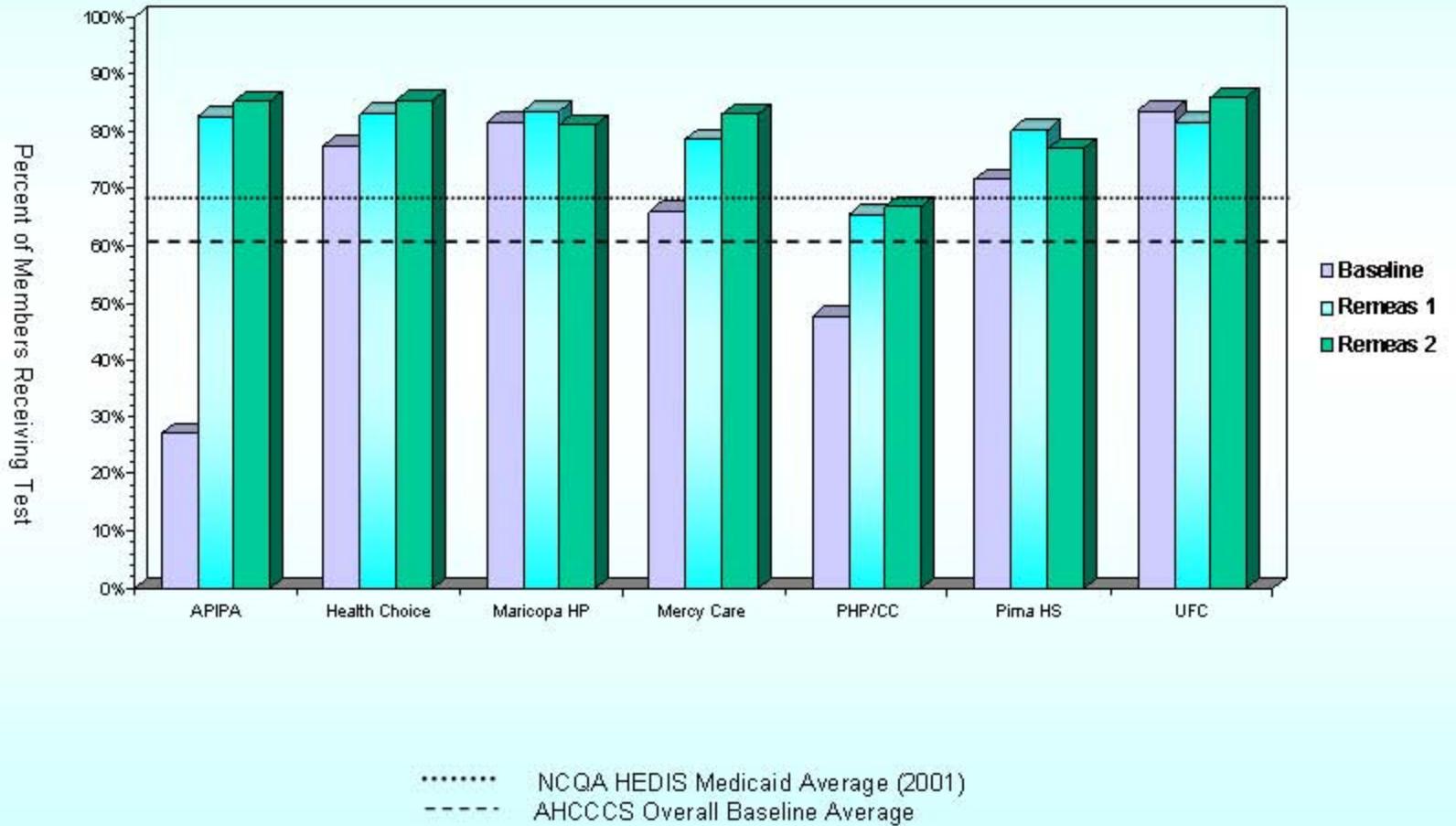
(1) Shaded rows reflect results of the first remeasurement (October 1, 2002, through September 30, 2003).

(2) Significance levels in bold indicate statistically significant change.

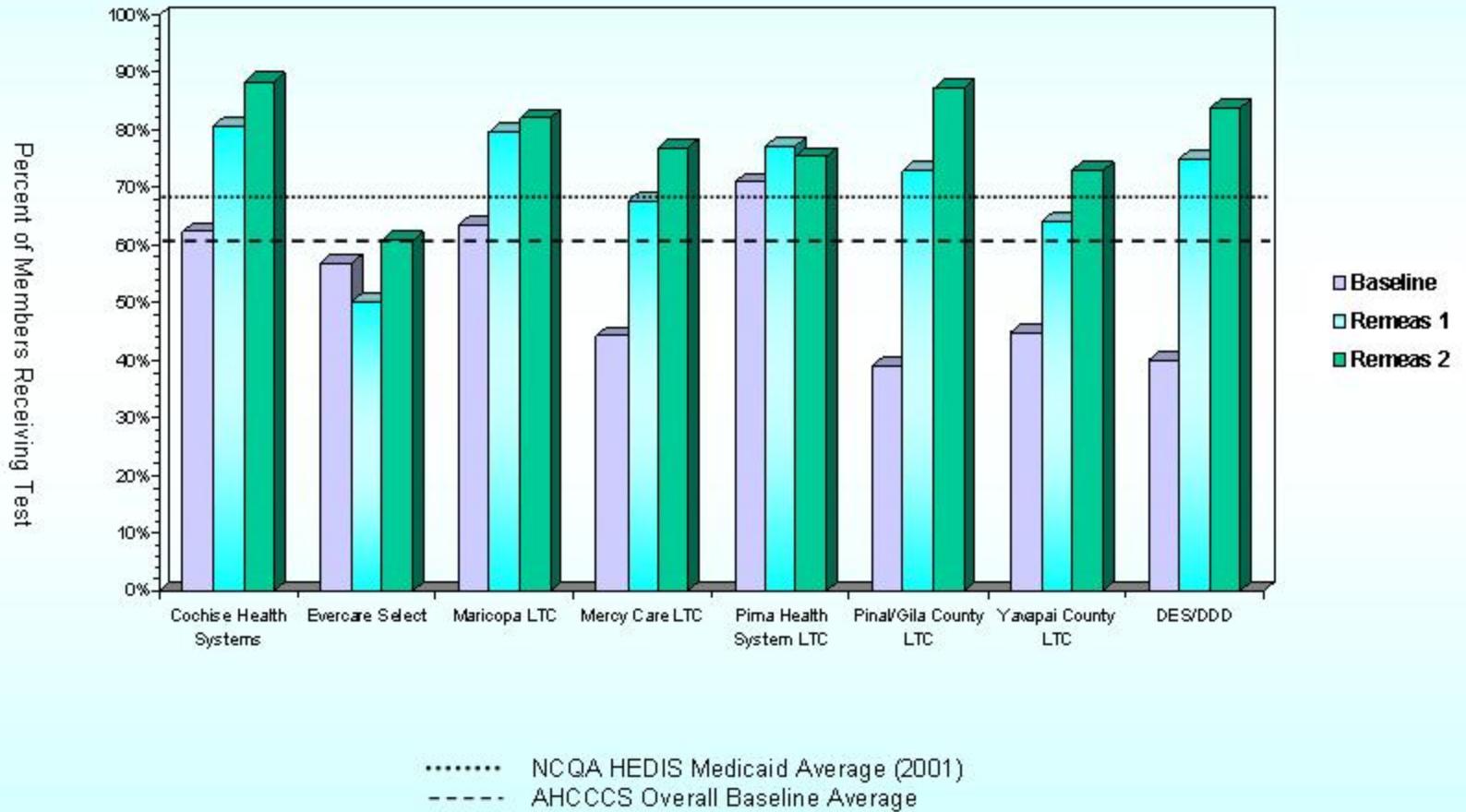
(3) Lower rates for this indicator are better.

(4) Numbers in parentheses in Median Level column represent interquartile ranges (25th and 75th percentile) when exhibited on a Bell curve.

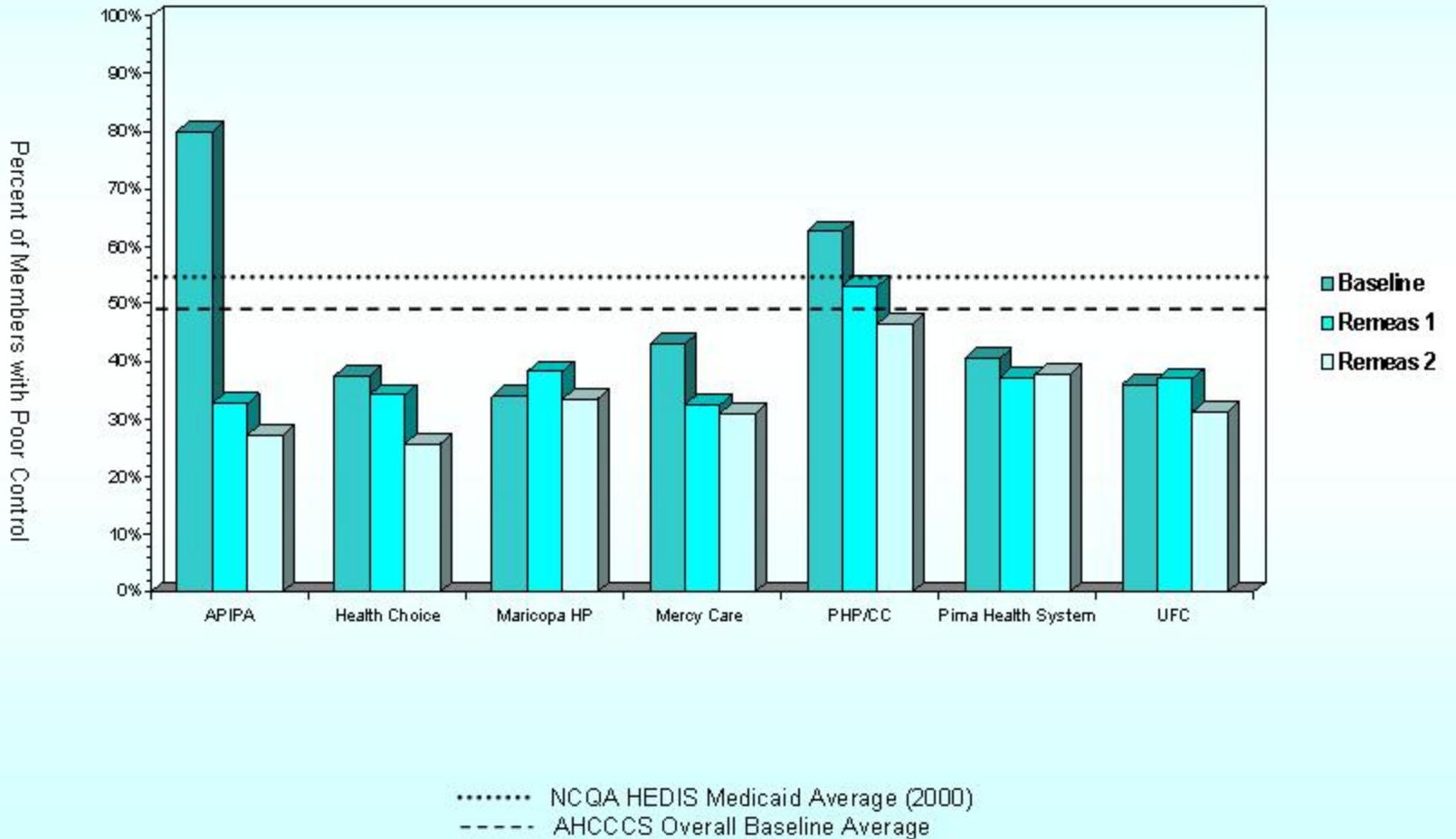
**FIGURE 1**  
**Arizona Health Care Cost Containment System**  
**Diabetes Management Performance Improvement Project**  
**Members Receiving Hb A1C Tests, by Acute-care Contractor**



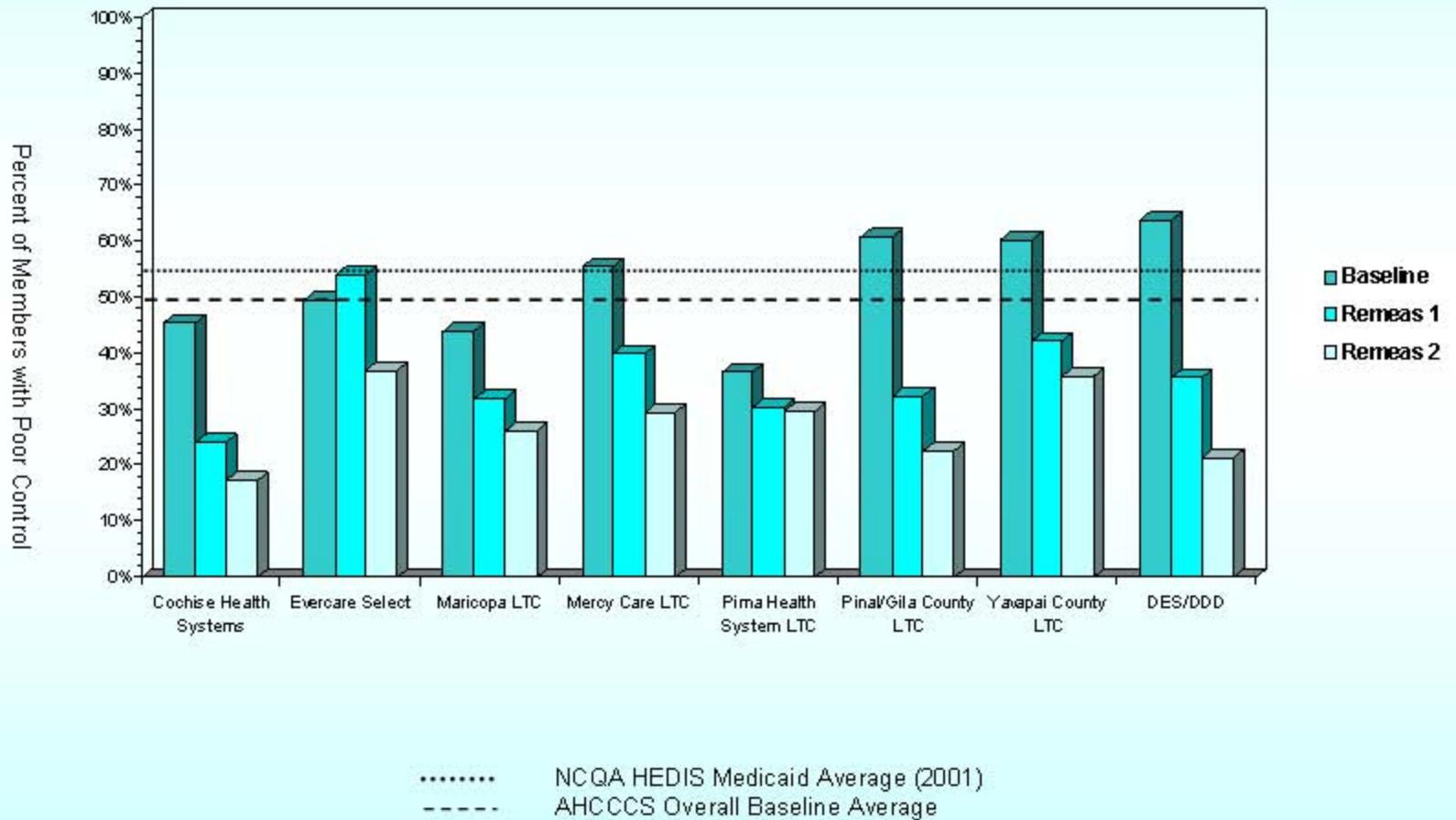
**FIGURE 2**  
**Arizona Health Care Cost Containment System**  
**Diabetes Management Performance Improvement Project**  
**Members Receiving Hb A1C Tests, by ALTCS Contractor**



**FIGURE 3**  
**Arizona Health Care Cost Containment System**  
**Diabetes Management Performance Improvement Project**  
**Poorly Controlled Hb A1C (> 9.5%), by Acute-care Contractor**



**FIGURE 4**  
**Arizona Health Care Cost Containment System**  
**Diabetes Management Performance Improvement Project**  
**Poorly Controlled Hb A1C (> 9.5%), by ALTCS Contractor**



**TABLE 5A**  
**AHCCCS Diabetes Management Performance Improvement Project**  
**Members Receiving Hb A1c Tests**  
**Third Remeasurement (CYE 2005) compared with Second Remeasurement (CYE 2004)**

Contractor	Included Cases	Number Receiving Hb A1c Test	Percent Receiving Hb A1c Test	Relative Change	Significance Level
Evercare Select	215	166	77.2%	26.8%	<b>p&lt;.001</b>
	184	112	60.9%		

**TABLE 5B**  
**AHCCCS Diabetes Management Performance Improvement Project**  
**Members with Poorly Controlled Hb A1c Levels**  
**Third Remeasurement (CYE 2005) compared with Second Remeasurement (CYE 2004)**

Contractor	Included Cases	Number with Hb A1c Level >9.5%	Percent with Hb A1c Level >9.5%	Relative Change in Levels >9.5%	Significance Level
Evercare Select	215	96	44.7%	20.8%	p=.119
	184	68	37.0%	6.5(6.0,7.5)	

Notes:

- (1) Shaded rows reflect results of the second remeasurement (October 1, 2003, through September 30, 2004).
- (2) Significance level in bold indicates statistically significant change.

**TABLE 6**  
**AHCCCS Diabetes Management Performance Improvement Project**  
**Data Validation Results, All Contractors**  
**First Remeasurement Period: October 1, 2002, through September 30, 2003**

	Original Abstraction	AHCCCS Results	Difference	Critical Errors		% Kappa Agreement
				Over	Under	
Hb A1c Test	1016	911	105	115	10	77.0%
Poorly Controlled	505	589	-84	10	94	84.0%
<b>Total</b>	<b>1521</b>	<b>1500</b>	<b>21</b>	<b>125</b>	<b>104</b>	<b>82.6%</b>
<b>Excluding Health Choice Arizona</b>						
Hb A1c Test	925	891	34	44	10	88.8%
Poorly Controlled	472	501	-29	10	39	91.7%
<b>Total</b>	<b>1397</b>	<b>1392</b>	<b>5</b>	<b>54</b>	<b>49</b>	<b>91.5%</b>

Table 7  
 AHCCCS Diabetes Management Performance Improvement Project  
 DATA VALIDATION RESULTS, BY CONTRACTOR  
 First Remeasurement Period: October 1, 2002, through September 30, 2003

		Original Abstraction	AHCCCS Results	Difference	Critical Errors		% Kappa Agreement
					Over	Under	
Maricopa Health Plan	Hb A1c Test	84	83	1	1	0	96.5%
	Poorly Controlled	44	45	-1	0	1	98.0%
	<b>Total</b>	<b>128</b>	<b>128</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>97.9%</b>
Pima Health System	Hb A1c Test	75	74	1	1	0	97.1%
	Poorly Controlled	42	43	-1	0	1	97.9%
	<b>Total</b>	<b>117</b>	<b>117</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>97.8%</b>
APIPA	Hb A1c Test	90	75	15	15	0	65.4%
	Poorly Controlled	43	54	-11	0	11	80.1%
	<b>Total</b>	<b>133</b>	<b>129</b>	<b>4</b>	<b>15</b>	<b>11</b>	<b>75.8%</b>
PHP/Community Connection	Hb A1c Test	72	68	4	4	0	91.6%
	Poorly Controlled	58	61	-3	0	3	94.3%
	<b>Total</b>	<b>130</b>	<b>129</b>	<b>1</b>	<b>4</b>	<b>3</b>	<b>93.0%</b>
Mercy Care Plan	Hb A1c Test	91	91	0	0	0	100.0%
	Poorly Controlled	34	34	0	0	0	100.0%
	<b>Total</b>	<b>125</b>	<b>125</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100.0%</b>
University Family Care	Hb A1c Test	79	79	0	0	0	100.0%
	Poorly Controlled	38	39	-1	0	1	97.9%
	<b>Total</b>	<b>117</b>	<b>118</b>	<b>-1</b>	<b>0</b>	<b>1</b>	<b>98.9%</b>
Health Choice Arizona	Hb A1c Test	91	20	71	71	0	7.0%
	Poorly Controlled	33	88	-55	0	55	16.3%
	<b>Total</b>	<b>124</b>	<b>108</b>	<b>16</b>	<b>71</b>	<b>55</b>	<b>-20.6%</b>
Cochise LTC	Hb A1c Test	50	50	0	0	0	100.0%
	Poorly Controlled	11	11	0	0	0	100.0%
	<b>Total</b>	<b>29</b>	<b>61</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100.0%</b>
DES/DDD	Hb A1c Test	62	61	1	6	5	67.7%
	Poorly Controlled	29	31	-2	3	5	79.4%
	<b>Total</b>	<b>91</b>	<b>92</b>	<b>-1</b>	<b>9</b>	<b>10</b>	<b>77.5%</b>
Pima LTC	Hb A1c Test	71	70	1	4	3	78.0%
	Poorly Controlled	26	26	0	5	5	73.1%
	<b>Total</b>	<b>97</b>	<b>96</b>	<b>1</b>	<b>9</b>	<b>8</b>	<b>81.3%</b>
Maricopa LTC	Hb A1c Test	76	75	1	2	1	89.9%
	Poorly Controlled	27	27	0	1	1	94.8%
	<b>Total</b>	<b>103</b>	<b>102</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>94.6%</b>
Yavapai LTC	Hb A1c Test	35	33	2	2	0	92.5%
	Poorly Controlled	25	27	-2	0	2	92.8%
	<b>Total</b>	<b>60</b>	<b>60</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>92.8%</b>
Evercare Select	Hb A1c Test	42	41	1	2	1	92.9%
	Poorly Controlled	46	47	-1	1	2	92.8%
	<b>Total</b>	<b>88</b>	<b>88</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>92.8%</b>
Pinal/Gila LTC	Hb A1c Test	40	33	7	7	0	71.0%
	Poorly Controlled	16	23	-7	0	7	72.4%
	<b>Total</b>	<b>56</b>	<b>56</b>	<b>0</b>	<b>7</b>	<b>7</b>	<b>74.0%</b>
Mercy Care LTC	Hb A1c Test	58	58	0	0	0	100.0%
	Poorly Controlled	33	33	0	0	0	100.0%
	<b>Total</b>	<b>91</b>	<b>91</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100.0%</b>

**TABLE 8**  
**AHCCCS Diabetes Management Performance Improvement Project**  
**Data Validation Results, Health Choice Arizona**  
**Second Remeasurement Period: October 1, 2003, through September 30, 2004**

		Original Abstraction	AHCCCS Results	Difference	Critical Errors		% Kappa Agreement
					Over	Under	
Health Choice Arizona	Hb A1c Test	77	76	1	1	0	96.8%
	Poorly Controlled	29	28	1	1	0	97.5%
	<b>Total</b>	<b>106</b>	<b>104</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>97.9%</b>

**Table 8  
Contractor Interventions to Improve Performance in Diabetes Management**

The following table includes interventions that AHCCCS Contractors used to improve rates of Hb A1c testing and levels during this PIP. The Chronic Care Model, developed by Wagner, et al, was adapted for use in organizing these interventions. The model identifies essential elements of a health care system that encourage high-quality care, and help ensure increased use of or access to services.<sup>1</sup>

<b>Community Linkages</b>	<b>Health System</b>	<b>Self-Management Support</b>	<b>Delivery System Design</b>	<b>Decision Support</b>	<b>Clinical Information Systems</b>
<p>Tie in outreach efforts with related activities/events; e.g., National Diabetes Awareness, community health fairs, etc.; may include partnering with another organization to provide free glucose testing</p> <p>Participate in the Arizona Diabetes Collaborative (2003-2004) to enhance knowledge and identify additional resources for diabetes care</p>	<p>Share goals of the Diabetes PIP and specific health plan results with provider network to engage them as stakeholders</p> <p>Incorporate performance goals into provider contracts, including Primary Care Providers (PCPs), as well as LTC providers such as assisted living facilities and attendant care providers; may involve "pay-for-performance" rewards</p>	<p>Case management or disease management staff follow up with patients to provide education, referral to diabetes classes and/or assistance in obtaining services (e.g., transportation to appointment, obtain lab order from PCP and schedule blood draw)</p> <p>Use of diabetes educators and group classes to help members better understand and participate in managing their disease</p>	<p>Utilize in-home Hb A1c testing kits, administered by case managers or home health nurses, for some long-term care members</p>	<p>Identify members with diabetes through regular reports, such as claims or laboratory data, and new member health risk assessments</p> <p>Stratify members by risk (high, moderate, low) and prioritize for intervention based on level of risk (mail, telephone outreach, home health visit, etc.)</p> <p>Develop and send provider utilization profiles of services received by diabetic patients on a PCP's panel</p>	<p>Use administrative data (e.g., claims) to routinely monitor performance/ utilization of services overall and by provider</p> <p>Incorporate medical chart audits into the performance monitoring process, with feedback to providers and facilities</p>

Community Linkages	Health System	Self-Management Support	Delivery System Design	Decision Support	Clinical Information Systems
	<p>Incorporate data reporting requirements into laboratory contracts to improve performance monitoring</p>	<p>Reinforce education/self-management skills through newsletters, special mailings, disease management information on website, etc</p> <p>Send letters or make phone calls to providers to advise them of their patients who have no or elevated Hb A1c results on record, or who have not refilled diabetic medications, so provider can engage patients</p>		<p>Develop/adopt practice guidelines and distribute to PCPs (physicians, PAs, NPs); reinforce through provider newsletters and other communications</p> <p>Implement use of tools, such as a diabetes flow sheet placed in the chart, by physician offices or facilities (e.g., nursing facilities) to prompt performing tests</p> <p>Provide continuing education on diabetes care to providers and health plan case managers</p>	

<sup>1</sup> Improving Chronic Illness Care. Overview of the Chronic Care Model. Available at: <http://www.improvingchroniccare.org/change/model/components.html>

Arizona Health Care Cost Containment System (AHCCCS)  
PERFORMANCE IMPROVEMENT PROJECT (PIP):

**Improving Hb A1c Testing and Levels among Members with Diabetes**

METHODOLOGY

**Background**

The United States Department of Health and Human Services estimates that almost 20 million Americans age 20 years and older have diabetes.<sup>1,2</sup> Direct and indirect costs associated with diabetes in the United States, including lost productivity, were estimated to be \$132 billion in 2002.<sup>3</sup>

Diabetes is the leading cause of end-stage kidney disease, lower extremity amputations, and new cases of blindness among U.S. adults ages 20 to 74 years.<sup>4</sup> Other complications of diabetes include heart disease, stroke, high blood pressure, nervous system damage, and dental disease. People with diabetes are more susceptible to many other illnesses; for example, they are more likely to die from pneumonia or influenza than people who do not have diabetes.<sup>1</sup>

Control of hyperglycemia (increased blood sugar) is critical to preventing or minimizing complications of diabetes. Sustained high blood sugars result in damage to the retina, peripheral nerves and kidneys. Thus, preventive-care practices, such as monitoring of blood-glucose levels, are effective in reducing both the incidence and progression of diabetes-specific complications.

Physicians utilize a glycosylated (also called glycated) hemoglobin, or Hb A<sub>1c</sub>, test to monitor patients' blood glucose levels. This test provides an indication of a person's average glucose levels over a two- to three-month period by measuring the amount of glucose that has bonded with hemoglobin in the body's red blood cells. A normal Hb A<sub>1c</sub> level for persons without diabetes is between 4 and 6 percent.<sup>5</sup>

**Purpose**

The purpose of this performance improvement project (PIP) is to increase the rate of Hb A<sub>1c</sub> testing among adults with diabetes who are enrolled with the Arizona Health Care Cost Containment System (AHCCCS), in order to assist those members and their physicians with establishing and maintaining control of blood-glucose (glycemic) levels.

It is expected that interventions related to this project will increase the number of AHCCCS Contractors that meet or exceed the NCQA benchmark for Medicaid managed-care plans.

**Measurement. Periods**

Baseline Measurement:	October 1, 2000, through September 30, 2001
First Remeasurement:	October 1, 2002, through September 30, 2003
Second Remeasurement:	October 1, 2003, through September 30, 2004

### **Study Questions**

1. What is the number and percent, overall and by Contractor, of members enrolled with AHCCCS who meet the sample frame criteria and who had at least one Hb A1c test?
2. What is the number and percent, overall and by Contractor, of members enrolled with AHCCCS who meet the sample frame criteria and who had Hb A1c levels greater than 9.5 percent?
3. Of those members who had at least one HB A1c test during the measurement period, what is the median level of the most recent test?

### **Population**

This study will include AHCCCS members diagnosed with diabetes, as defined by HEDIS criteria. Members may be identified as diabetic during the measurement year or twelve months prior.

### **Population Exclusions**

The following members will be excluded from this study:

- Members with steroid induced diabetes and gestational diabetes
- Members with a diagnosis of polycystic ovaries who do not have two face-to-face encounters with the diagnosis of diabetes in any setting during the measurement year or prior year
- Tribal and Fee for Service members will be excluded due to the inability to accurately collect complete data on these populations.

### **Population Stratification**

The population will be stratified by:

- Program type (Acute-care, ALTCS\* and DES/DDD\*)
- Contractor

\* E/PD and VD populations for each Contractor will be combined before stratifying

### **Sample Frame**

The sample frame will consist of members 18 through 75 years of age as of the end of the measurement period who were continuously enrolled during the measurement period, with no more than one gap in enrollment of up to 31 days, and diagnosed with type 1 or type 2 diabetes.

- Prior Period Coverage (PPC) will be considered a break in enrollment.
- A change of county service area with the same Contractor, without a gap in enrollment, will not be considered a break in enrollment.

### **Sample Selection**

The sample frame will be identified through enrollment, claims and encounter records using the stated criteria. A statistical software program will be used to select a representative, random sample, using a 95-percent confidence level and a confidence interval of +/-5 percent. Based on prior studies, an over sampling rate of 10 percent will be utilized to allow for missing or incomplete records.

## **Identification of Members with Diabetes**

Members with diabetes will be identified, according to HEDIS specifications, by one of the following methods:

### Pharmacy Data

- National Drug Code (NDC) list available at:  
<http://www.ncqa.org/Programs/HEDIS/hedis2004NDClists.htm>

OR

### Diagnosis Codes

- 250 – Diabetes mellitus
- 357.2 – Polyneuropathy in diabetes
- 362.0 – Diabetic retinopathy
- 366.41 – Central serous retinopathy
- 648.0 – Diabetes

AND

Two face-to-face encounters with different dates of service in an ambulatory or non-acute inpatient setting, or one face-to-face encounter in an acute inpatient or emergency room setting during the measurement year, or the year prior to the measurement year, with a diagnosis of diabetes as specified above. See Appendix A for codes to identify encounters.

## **Indicators**

### Hb A1c testing

This indicator measures whether selected members received one or more Hb A1c tests during the measurement period, identified through either administrative data or medical record review. A member is considered to have had an Hb A1c test if:

- a claim or encounter with CPT code 83036 (glycated hemoglobin laboratory test) or an automated laboratory record with a service date during the measurement period was found for the member, or
- there was documentation in the member's medical record (at a minimum, a note or lab result record) indicating the date an Hb A1c test was performed and the result.

The following notations count toward this indicator:

- glycated hemoglobin
- glycosylated hemoglobin
- A1c
- Glycohemoglobin A1c
- HbA1c
- Hemoglobin A1c
- HgbA1c

### Poor Hb A1c Control

This indicator measures the degree of blood-glucose control of members, and is defined as “poor” if:

- the most recent Hb A1c level performed during the measurement period was greater than 9.5 percent, as documented through automated laboratory data or medical record review, or
- there was no Hb A1c test performed during the measurement period or no Hb A1c level documented.

Note: Glycosylated hemoglobin or glycohemoglobin may be converted to Hb A1c using the following formula:  $(0.685 \text{ glycohemoglobin}) + (1.2) = \text{Hb A1c}$ .

### Controlled Hb A1c

Blood glucose is considered “controlled” if the most recent Hb A1c test performed during the measurement period shows a level less than or equal to 9.5 percent, as documented through automated laboratory data or medical record review.

### **Denominators**

1. The total number of sample members enrolled with AHCCCS Contractors

### **Numerators**

1. The number of members who had one or more Hb A1c tests during the measurement period
2. The number of members whose most recent Hb A1c levels were greater than 9.5 percent or who did not have Hb A1c tests during the measurement period

### **Confidentiality Plan**

AHCCCS continues to work in collaboration with Contractors to maintain compliance with the Health Insurance Portability and Accountability Act (HIPAA) requirements. The Data Analysis and Research (DAR) Unit maintains the following security and confidentiality protocols:

- To prevent unauthorized access, the sample member file is maintained on a secure, password-protected computer, by the DAR project lead.
- Only AHCCCS employees who analyze data for this project will have access to study data.
- All employees and Contractors are required to sign a confidentiality agreement.
- Requested data are used only for the purpose of performing health care operations, oversight of the health care system, or research.
- Only the minimum amount of necessary information to complete the project is sent to and returned from Contractors.
- Sample files given to Contractors are tracked to ensure that all records are returned.
- Member names are never identified or used in reporting.
- Upon completion, all study information is removed from the computer and placed on a compact disk, and stored in a secure location.

### **Data Sources**

- Encounters, claims and pharmacy data (Form C) will be used to identify the population.

- AHCCCS has worked in collaboration with laboratories to establish a direct data links between Contractors and laboratories in their networks. These laboratories have the capability to electronically download member lab results directly into a Contractor's data information system. Contractors may collect data directly from their data information systems.
- When administrative or laboratory data is not available, data will be collected from members' medical or case management records. A record of a claim paid by the Contractor for an Hb A1c test (CPT code 83036) with the date of service also may be used for the indicator of Hb A1c testing in the event that no other data source is available.

### **Data Collection Tool**

A data collection tool was developed specifically for this study by the DAR Unit for the baseline measurement. A copy of the blank tool in electronic form was provided to each Contractor for optional use in collecting data. This tool is designed to collect accurate data in a simple and concise manner, while maintaining member confidentiality in compliance with HIPAA guidelines.

An electronic file of sample members with instructions will be provided to each Contractor for data entry.

### **Data Collection Process**

- When the final population file is received from the AHCCCS Information Services Division, the sample population will be stratified and selected by the DAR Unit. An electronic data file will be prepared for each Contractor
- Contractors will collect the required data and enter it on the electronic file.
- The electronic data file will then be returned to AHCCCS.

### **Quality Assurance Process**

- Contractors will be instructed in use of the data collection tool, data collection methods, sample file layout and timelines for data collection during a meeting with AHCCCS staff.
- Contractors will receive written instructions for data collection, in addition to AHCCCS resource and contact information for assistance.
- AHCCCS will verify that all records have been returned. Distribution to Contractors and return of sample files will be monitored by the DAR Unit.

### **Data Validation**

- To verify Hb A1c level, Contractors must submit any one of the following for each member identified as having an Hb A1c test: laboratory records, pertinent medical or case management record(s), or information extracted from direct transmission of laboratory data.
- This documentation must contain the date of service and the Hb A1c level. Thus, the documentation also will validate that an Hb A1c test was performed during the measurement period.

- If no documentation of an Hb A1c level is available, but the Contractor has evidence of a claim paid for an Hb A1c test (CPT code 83036), the Contractor should submit verification of the administrative data.
- A double-blind validation will be performed by AHCCCS, matching the medical/case management record or laboratory data with data on the Contractor's electronic file.

### **Limitations**

- A large portion of the ALTCS population also is covered by Medicare and seeks services outside the AHCCCS provider system. Because Medicare is the primary payer for Medicare beneficiaries, AHCCCS and/or its health plans may not have the ability to collect information on services provided to members outside the AHCCCS system. Thus, some members with diabetes may not be identified for inclusion in the denominator or the numerator.

### **Deviations from Previous Methodology**

- Codes to identify diabetic members were updated in HEDIS<sup>®</sup> 2004, including:
  - CPT codes 99289 and 99290 were deleted from the Outpatient/Nonacute Inpatient.
  - DRG code 205 was deleted from Diabetes diagnosis and replaced with DRG code 295
  - Add DRG code 294 to identify Diabetes
  - Add UB-92 Revenue Code 0456. (*this code replaced DRG code 462*)
  - UB-92 Revenue codes 45X were deleted from Acute Inpatient/Emergency Department and replaced with codes 0450,0451,0452, and 0459.
- Plans should have documentation of the lab vendor's conversion formula available for the HEDIS Compliance Auditor. NCQA will recommend removing glycohemoglobin tests from the specifications during the HEDIS 2005 public comment period.

### **Analysis Plan**

- The denominator will be divided by the numerator to determine the percentage of compliance with each indicator. The rates will be analyzed and reported by program (ALTCS, Acute-care and DES/DDD), individual Contractor, urban and rural counties, and statewide aggregate.
- The median of the most recent laboratory values of all members who had an HB A1c test during the measurement period will be calculated and reported overall, by program and by individual Contractor
- Variability of distribution will be calculated by range and standard deviation. Any Contractor with results more than two standard deviations from the mean will be identified, and the reason ascertained if possible. To avoid skewed and misleading conclusions, any such Contractor may be excluded from selected charts and graphs. Clear documentation in the report will caveat any Contractor exclusions and the reasons for exclusion.

## Comparative Analysis

- Differences between the first remeasurement results and this second remeasurement will be analyzed for statistical significance and relative change.
- The results of this study will be compared to the results of other state Medicaid programs as reported by the National Committee for Quality Assurance (NCQA).
- Results for urban and rural counties will be compared.
- Individual Contractors will be compared to each other and to the statewide average.
- All other stratifications as deemed appropriate (i.e. age, gender) will be compared with each other.

## Report Format:

- The report will include the methodology used, narrative summary of analysis findings, limitations and recommendations
- Findings will be displayed in appropriate charts, tables and/or graphs, with results reported by individual Contractor, program type, and statewide aggregate.
- The comprehensive findings will be presented in a manner that will allow for easy interpretation of the data by evaluators at the federal, state, and Contractor levels.
- Results will be reported on the AHCCCS website and may be sent to organizations such as NCQA.

## References

<sup>1</sup> American Diabetes Association. National diabetes fact sheet. Available at:

[http://www.diabetes.org/main/info/facts/facts\\_natl.jsp](http://www.diabetes.org/main/info/facts/facts_natl.jsp). Accessed March 19, 2003.

<sup>2</sup> Centers for Disease Control and Prevention. National diabetes fact sheet: general information and national estimates on diabetes in the United States, 2000. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2002.

<sup>3</sup> American Diabetes Association. Economic costs of diabetes in the US in 2002. *Diabetes Care*. 2003; 26:917-932. Available at: <http://www.care.diabetesjournals.org/cgi/content/full/26/3/917>. Accessed March 19, 2003.

<sup>4</sup> Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. Chronic disease prevention: impact of diabetes. June 1, 1999. Available at: <http://www.cdc.gov/diabetes/pubs>. Accessed March 5, 2002.

<sup>5</sup> American Diabetes Association. In the news, More people need to know about the test for A1c – or glycated hemoglobin – that has revolutionized diabetes care. Available at: [http://ada.yellowbrix.com/pages/ada/Story.nsp?story\\_id=37436183&ID=ada](http://ada.yellowbrix.com/pages/ada/Story.nsp?story_id=37436183&ID=ada). Accessed March 19, 2003.

## APPENDIX A

### *Diagnosis, Procedure, and Revenue Codes* ICD-9 CM Codes - UB 82/92

#### **Diabetes Mellitus members with the following codes will NOT qualify for the study:**

- 251.8 – *Other specified disorders of pancreatic internal secretion*
- 256.4 – *Polycystic Ovaries*
- 648.8x – *Gestational diabetes*
- 962.0 – *Adrenal cortical steroids*

#### **Diabetes Mellitus members with the following codes WILL qualify for the study:**

- 250 – Diabetes Mellitus without mention of complications
- 357.2 – Polyneuropathy in diabetes
- 362.0 – Diabetic retinopathy
- 366.41 – Diabetic cataract
- 648.0 – Diabetes Mellitus (classifiable to 250)

#### **GROUP I – CODES**

##### **In conjunction with Revenue Codes – UB82/92 (Out-patient or Non-Acute Care)**

- 0456 Emergency Room – Urgent Care
- 049x Ambulatory Surgical Care
- 050x Outpatient Services
- 051x Clinic
- 052x Free-Standing Clinic
- 053x Osteopathic Services
- 055x Skilled Nursing
- 056x Medical Social Services
- 057x Home Health – Home Health Aide
- 058x Home Health – Other Visits
- 059x Home Health – Units of Service
- 065x Hospice Service
- 066x Respite Care (HHA only)
- 076x Treatment /Observation Room
- 077x Preventative Care Services
- 082x Hemodialysis – Outpatient or Home
- 083x Peritoneal Dialysis – Outpatient or Home
- 084x Continuous Ambulatory Peritoneal Dialysis (CAPD) – Outpatient or Home
- 085x Continuous Cycling Peritoneal Dialysis (CCPD) – Outpatient or Home
- 088x Miscellaneous Dialysis
- 092x Other Diagnostic Services
- 094x Other Therapeutic Services
- 096x Professional Fees
- 0972 Professional Fees: Radiology - Diagnostic
- 0973 Professional Fees: Radiology – Therapeutic

- 0974 Professional Fees: Radiology – Nuclear Medicine
- 0975 Professional Fees: Operating Room
- 0976 Professional Fees: Respiratory Therapy
- 0977 Professional Fees: Physical Therapy
- 0978 Professional Fees: Occupational Therapy
- 0979 Professional Fees: Speech Pathology
- 0982 Outpatient Services
- 0983 Clinic
- 0984 Medical Social Services
- 0985 EKG
- 0986 EEG
- 0988 Consultation
- 0989 Professional Fees: Private Duty Nurse

AND/OR

**GROUP 1 CODES**

**In conjunction with CPT Codes - HCFA 1500 (Outpatient or Non-Acute Care)**

- 92002 – 92014 General Ophthalmological Services (New & Established Patient)
- 99201 – 99205 New Patient: Office or other outpatient visit
- 99211 – 99215 Established Patient: Office or other outpatient visit
- 99217 – 99220 Observation Care Discharge Services and Initial Observation & Care (New or Established Patients.)
- 99241 – 99245 Office or Other Outpatient Consultations (New or Established Patient)
- 99271 – 99275 Confirmatory Consultations (New or Established Patient)
- 99301 – 99303 Evaluation and Management (New or Established Patient)
- 99311 – 99313 Subsequent Nursing Facility Care (New or Established Patient)
- 99321 – 99323 Domiciliary Rest Home or Custodial Care Services (New Patients)
- 99331 - 99333 Domiciliary Rest Home or Custodial Care Services (Established Patient)
- 99341 – 99355 Home Services & Prolonged Services (New or Established Patient)
- 99384 – 99387 Preventative Medicine (New Patient)
- 99394 – 99397 Preventative Medicine (Established Patient)
- 99401 – 99404 Preventative Medicine, Individual Counseling
- 99411 Preventative Medicine, Group Counseling (30 minutes)
- 99412 Preventative Medicine, Group Counseling (approx. 60 minutes)
- 99420 – 99429 Other Preventative Medicine Services
- 99499 Other Evaluation and Management Services

AND/OR

## **GROUP 2 CODES**

### **In conjunction with Revenue Codes – UB82/92 (Acute-Inpatient or Emergency Department)**

- 010x All Inclusive Rate
- 011x Room & Board – Private (Medical or General)
- 012x Room & Board – Semi-Private Two Bed (Medical or General)
- 013x Room & Board – Semi-Private – Three & Four Beds
- 014x Room & Board – Private (Deluxe)
- 015x Room & Board – Ward (Medical or General)
- 016x Room & Board - Other
- 020x Intensive Care
- 021x Coronary Care
- 022x Special Charges
- 0450 Emergency Room – General Classification
- 0451 Emergency Room – EMTALA Emergency Medical Screening Services
- 0452 Emergency Room – ER Beyond EMTALA Screening
- 0459 Emergency Room – Other Emergency Room
- 072x Labor Room/Delivery
- 080x Inpatient Renal Dialysis
- 0981 Professional Fees – Emergency Room
- 0987 Professional Fees – Hospital Visit

## **GROUP 2 CODES**

### **In conjunction with CPT Codes - HCFA 1500 (Acute Inpatient/Emergency Department)**

- 99221 – 99223 Initial Hospital Care (New or Established Patient)
- 99231 – 99233 Subsequent Hospital Care
- 99238 – 99239 Hospital Discharge Services
- 99251 – 99255 Initial Inpatient Consultations (New or Established Patient)
- 99261 – 99263 Follow-Up Inpatient Consultations (Established Patient)
- 99281 – 99288 Emergency Department Services and Physician Direction
- 99291 – 99292 Critical Care Services
- 99356 - 99357 Prolonged Physician Service - Inpatient Setting\*

\*MCOs should exclude women with gestational diabetes.

## **GROUP 3 CODES**

### **Codes used to identify Diabetics using Pharmacy Data (Form C) (Therapeutic Class):**

#### **Anti-Diabetic Agents**

- 682000

#### **Insulin**

- 682008

#### **Sulfonlurea**

- 682020

#### **Miscellaneous Active Agents**

- 682092

**Arizona Health Care Cost Containment System (AHCCCS)  
Diabetes Performance Improvement Project (PIP)  
Second Remeasurement  
Contractor Data Request**

**LAYOUT OF MEMBER IDENTIFIER FILE**

Below is the layout of the data file provided in your packet. The file contains the demographic information for members included in the PIP study sample population. This information is provided in both a d-BASE IV and an Excel spreadsheet format.

Variable	Variable Name	Format	Length
1	AHCCCS Identification	Text	9
2	Health Plan Identification Number	Text	6
3	LName	Text	30
4	FName	Text	20
5	MI	Text	3
6	Gender	Text	3
7	DOB (MM/DD/YYYY)	Date	10
8	Age	Text	3
9	Hb A1c Test	Text	3
10	Gestational Diabetes	Text	3
11	Steroid Induced Diabetes	Text	3
12	Hb A1c Level	Text	4
13	Hb A1c Date	Date	10
14	Exclusion Reason	Text	50

**Description of Included Elements**

AHCCCS Identification	9-digit AHCCCS member ID number
Health Plan Identification	6-digit Contractor ID number
LName	Last name of the member as listed in the AHCCCS system
FName	First name of the member as listed in the AHCCCS system
MI	Middle Initial of the member as listed in the AHCCCS system
Gender	Gender of the member as listed in the AHCCCS system
DOB	Member date of birth as listed in the AHCCCS system
Age	Age of member at the end of the study period
Hb A1c Test	Hb A1c test was or was not performed
Gestational Diabetes	Member has or does not have gestational diabetes
Steroid Induced Diabetes	Member has or does not have steroid induced diabetes
Hb A1c Level	Results of the latest Hb A1c level
Hb A1c Date	Date that latest Hb A1c test was completed
Exclusion Reason	Reasons why Hb A1c data was not provided

## INSTRUCTION FOR CONSTRUCTING FILES

**Contractors mayn submit information in one of three ways: using an Excel spreadsheet provided by AHCCCS, or a d-BASE IV file or a Text file. The data layout and instructions described must be followed for submission to ensure accuracy of data translation and acceptance of data elements by AHCCCS.**

- All variable fields must be left justified.
- All variable fields are to be used exactly as indicated in the above tables.
- If information does NOT exist for any variable field, leave blank spaces in the columns.
- Do not add any “new” variables that are not listed in the above table.
- Do not change variable names.
- Do not change the order of the variable fields.
- Do not change any information provided by AHCCCS. If there is a question regarding the information provided, please notify AHCCCS immediately.
- A blank data collection tool, in a Word format will be provided for Contractor’s use only. This tool is **NOT** to be returned with electronic data file.
- All dates should be formatted as mm/dd/yyyy. Thus, January 2, 2003 would be reported as 01/02/2003.
- If submitting information in an Excel spreadsheet, use the file provided by AHCCCS. Do not change the formatting. The format has been designed for accurate importing of the data into AHCCCS software. Any changes to the format could result in lost information and a request for the Contractor to resubmit the data.
- If submitting the information in a d-BASE IV format, use the field layout provided above. If no information exists for a variable field or your data does not fill the required field length, use blank spaces in that column.
- Data files must be formatted as fixed-width text files (\*.txt).
- Submit the data files using a 3.5” IBM compatible diskette or CD-ROM. If file size is an issue, please compress the files into a .zip file. If this does not solve the file size problem, please call Yvette McCormack at (602) 417- 4503.

- Put an external label on the disk or CD indicating:

Health Plan or Program Contractor Name  
Contact Name & Phone Number  
Number of records in file(s) being provided

- Send the disk or CD to:

AHCCCS  
C/O Yvette McCormack - DAR  
701 East Jefferson, Mail Drop 6600  
Phoenix, AZ 85034

**ANY DEVIATIONS FROM THE INSTRUCTIONS FOR SUBMISSION OF DATA  
WILL NOT BE ACCEPTED AND RETURNED TO THE CONTRACTOR.**

**Contact information:**

Technical questions related to the data request: should be directed to Yvette McCormack at (602) 417-4503 or e-mail: [yvette.mccormack@azahcccs.gov](mailto:yvette.mccormack@azahcccs.gov)

All other questions related to the project should be directed to Rochelle Tigner at (602) 417-4683 or e-mail: [rochelle.tigner@azahcccs.gov](mailto:rochelle.tigner@azahcccs.gov)